SMT Power Inductor (MOLDING TYPE)

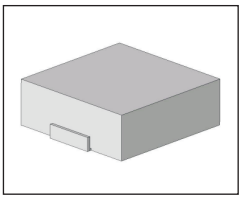
MPC Type

Features

- RoHS compliant.
- Low profile, high current SMD type.
- Frequency range up to 1MHz.
- Lowest DCR/μH, in this package size.
- Low buzz noise due to its gap-less structure.

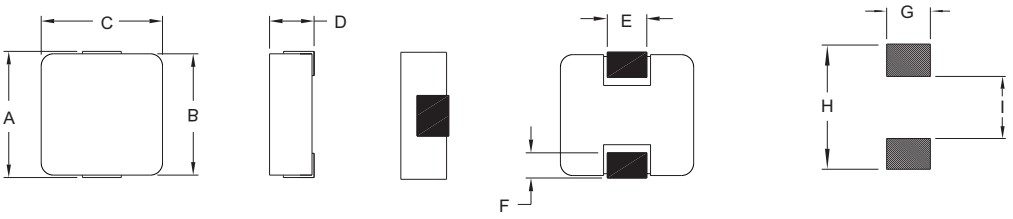
Applications

- Notebook/Desktop/Server/Video Card applications.
- High current POL converters.
- Low profile, high current power supplies.
- Battery powered devices.
- Ideal for power source circuits, DC-DC converter.
- DC-AC inverters inductor application.



Mechanical Dimension:

RECOMMENDED PAD PATTERNS



UNIT : mm

Part Series	A	B	C	D	E	F	G	H	I
MPC7X	7.70 Max.	6.70±0.3	6.70±0.3	3.00 Max.	3.00±0.5	1.80	4.00	8.70	4.00
MPC10X	11.50 Max.	10.00±0.3	10.00±0.3	4.00 Max.	3.00±0.5	2.20	4.00	12.50	6.50
MPC13X	14.00 Max.	12.90±0.3	12.90±0.3	6.50 Max.	4.70±0.5	2.30	5.50	15.00	7.80

Electrical Characteristics: At 25°C: 100KHz, 0.25V

PART NO.	L_o[1] (uH)	L1(uH)		DCR		Ir[2] (Adc)	Isat[3] (Adc)
		TYP.	Measuring Current(A)	(mΩ) TYP.	(mΩ) MAX.		
MPC730R68M1	0.68 ± 20%	0.58	15.0	5.0	5.5	15.0	25.0
MPC730R82M1	0.82 ± 20%	0.70	12.5	6.8	8.0	12.5	24.0
MPC7301R0M1	1.00 ± 20%	0.85	11.0	8.0	10.0	11.0	23.0
MPC7301R5M1	1.50 ± 20%	1.30	8.5	13.0	15.0	8.5	18.0
MPC7302R2M1	2.20 ± 20%	1.90	7.0	18.0	20.0	7.0	15.0
MPC7303R3M1	3.30 ± 20%	2.80	6.0	28.0	30.0	6.0	14.0
MPC7304R7M1	4.70 ± 20%	4.00	5.0	37.0	40.0	5.0	10.0
MPC10402R2M1	2.20 ± 20%	1.90	13.0	8.5	9.4	13.0	30.0
MPC10403R3M1	3.30 ± 20%	2.90	9.0	11.7	12.8	9.0	19.0
MPC10404R7M1	4.70 ± 20%	4.00	8.5	15.0	16.5	8.5	14.0
MPC10405R6M1	5.60 ± 20%	4.70	8.0	17.4	19.2	8.0	12.0
MPC13654R7M1	4.70 ± 20%	3.90	13.0	9.5	11.5	13.0	30.0
MPC13655R6M1	5.60 ± 20%	4.70	11.0	11.5	13.2	11.0	19.0
MPC13656R8M1	6.80 ± 20%	5.90	10.0	14.5	16.5	10.0	17.0
MPC13658R2M1	8.20 ± 20%	7.10	9.0	15.0	17.0	9.0	16.5
MPC1365100M1	10.00 ± 20%	8.40	8.5	17.0	18.8	8.5	16.0

1. Lo is inductance tested at 0 Adc, and L1 is inductance tested at Irated.
2. Ir is the DC current which cause the surface temperature of the part increase approximately than 40°C.
3. Isat is the DC current which cause the inductance drop approximately 30% of its nominal inductance without current.
4. Operating temperature range : -55°C to 125°C
5. Ambient temperature, Maximum : 85°C.
6. Temperature Rise, Maximum : 40°C.

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